

- 1. Floor or Wall Assembly Min 8 in. (203 mm) thick floor or min 8-1/2 in. (216 mm) thick wall made from reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Floor assembly may also be constructed of any 8 in. (203 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diameter of opening is 4 in. (102 mm). See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) category in the Fire Resistance Directory for names of manufacturers.
- 2. Through Penetrants Max six nonmetallic pipes, tubes or conduits to be installed concentrically or eccentrically within the firestop system. Annular space between pipe, tubing or conduit and edge of opening to be min 0 in. (point contact) and max 1-1/2 in. (38 mm). Pipe, tubing or conduit to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipe, tubing or conduit may be used:
 - A. Polyvinyl Chloride (PVC) Pipe Nom 1 in. (25 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe Nom 1 in. (25 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
 - C. Rigid Nonmetallic Conduit+ Nom 1 in. (25 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).
 - D. Crosslinked Polyethylene (PEX) Tubing Nom 1 in. (25 mm) diam (or smaller) SDR9 PEX tubing for use in closed (process or supply) piping systems.
- 3. Firestop System The firestop system shall consist of the following:
 - A. Packing Material Min 7-1/2 in. (190 mm) thickness of 4 pcf (64 kg/m3) mineral wool batt material firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material (Item 3B).
 - B. Fill Void or Cavity Material* Sealant Min 1/2 in. (13 mm) thickness of fill material applied, within annulus, flush with top surface of floor or both surfaces of wall. At point contact location between penetrant and periphery of opening a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the concrete/penetrant interface on top surface of floor assembly or both surfaces of wall assembly.
 - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.
- +Bearing the UL Listing Mark



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